

REMARKS**Allowed Subject Matter**

Claims 15-17 and 23-25 have been rewritten in independent form including all of the limitations of the base claim and intervening claims. Claims 1, 26, and 27 have been amended in the interest of expediting prosecution. Dependent claims 3-5, 8, 10, and 18-21 have been amended to correct typographic errors and to conform with the amended claim language of claim 1. No new matter has been added. Applicant respectfully asserts that these claims are in condition for allowance.

Rejections under 35 U.S.C. § 102

Claims 1-4, 7, 8-12, 14, 21, and 26-29 have been rejected by the Examiner under 35 U.S.C. § 102(b) as being anticipated by *Taylor* (U.S. Patent No. 5,390,078). Applicant respectfully traverses the Examiner's rejection of these claims as being anticipated by *Taylor* for the following reasons.

A claim is anticipated only if each and every element as set forth in the claim is taught by the reference cited. *See* M.P.E.P. §2131. Regarding claim 1, the Examiner states in Paragraph 2 of the Office Action that *Taylor* "discloses a system comprising a first component 14, 25 that generates heat; and a second component 12, 31 that is thermally connected to the first component...." Applicant respectfully traverses the Examiner's assertion. *Taylor* discloses that daughter circuit board 14 has circuitry on top 25 with heat sinks 27. *Taylor* does not indicate that the daughter circuit board 14 or top circuitry 25 are thermally linked to the primary circuit board 12 or the bottom circuitry 31. The fact that the *Taylor* disclosure shows that heat sinks 27 are required for the top circuitry 25 shows that a thermal connection between the daughter circuit board 14 and/or top circuitry 25 and the primary circuit board 12 and/or bottom circuitry 31 was not contemplated. Because the first and second components of the claimed subject matter are thermally connected, the *Taylor* reference does not anticipate claim 1.

In the interest of expediting prosecution of the application, Applicant has amended claim 1. No new matter has been added. Applicant believes that claim 1 is now in condition

for allowance and Applicant respectfully requests that the Examiner withdraw the rejection of claim 1 under 35 U.S.C. § 102(b).

The method of claim 26 was rejected as being necessitated by the device structure as disclosed by *Taylor*. The Examiner asserts that *Taylor* comprises a first component 14, 25 and a second component 12, 31 thermally connected to the first component. Office Action, Paragraph 2. Applicant respectfully asserts that the method steps of claim 26 are not necessitated by the device disclosed in *Taylor*. *Taylor* does not disclose the thermal connection of the first component 14, 25 to the second component 12, 31. Instead, *Taylor* teaches that the first component may be thermally connected to alternative heat transfer devices, heat sinks 27, that perform no other function than transferring heat. Therefore, the structure disclosed in *Taylor* would not necessarily perform the method steps of claim 26 of providing a second component in a system that has a function associated with an operation of the system other than transferring heat, and thermally connecting the second component to the first component whereby heat generated by the first component is transferred to the second component.

In the interest of expediting prosecution of the application, Applicant has amended claim 26. No new matter has been added. Applicant believes that claim 26 is now in condition for allowance and Applicant respectfully requests that the Examiner withdraw the rejection of claim 26 under 35 U.S.C. § 102(b).

The method of claim 27 was rejected as being necessitated by the device structure disclosed by the *Taylor* reference. The Examiner asserts that *Taylor* comprises a first component 14, 25 and a second component 12, 31 thermally connected to the first component. Office Action, Paragraph 2. Applicant respectfully asserts that the method steps of claim 27 are not necessitated by the device disclosed in *Taylor*. *Taylor* does not disclose the transfer of heat from the first component 14, 25 to the second component 12, 31. Instead, *Taylor* teaches that the first component may be thermally connected to alternative heat transfer devices, heat sinks 27, that perform no other function than transferring heat. Therefore, the structure disclosed in *Taylor* would not necessarily perform the method step of claim 27 of transferring heat from the first component to a second component in a system that has a function associated with an operation of the system other than transferring heat.

In the interest of expediting prosecution of the application, Applicant has amended claim 27. No new matter has been added. Applicant believes that claim 27 is now in condition for allowance and Applicant respectfully requests that the Examiner withdraw the rejection of claim 27 under 35 U.S.C. § 102(b).

Claim 28 has been rejected under 35 U.S.C. § 102(b). The Examiner states that *Taylor* discloses “a third portion 26 for connecting the first portion to the system, thereby enabling the function of the first component and a thermal conduction path between the first portion and the second portion....” However, third portion 26 is described in *Taylor* as being bolts. *Taylor*, col. 2, line 28. Applicants respectfully assert that bolts would not enable the function of the first component as claimed, as the function must be associated with an operation of the system other than transferring heat. Therefore, *Taylor* does not anticipate the claimed subject matter of claim 28. Applicant respectfully requests that the Examiner withdraw the rejection of claim 28.

The Examiner has not provided an explanation for the 35 U.S.C. § 102(b) rejection of claim 29. 37 C.F.R. § 1.104(c) requires that “the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.” Applicant cannot argue against the rejection of claim 29 as anticipated by *Taylor*, as it is not apparent what parts of the cited reference anticipate the claimed subject matter. Applicant respectfully requests that the Examiner either clarify the basis of or withdraw the rejection of claim 29.

Claims 2-3, 7, 8-12, 14, and 21 depend from independent claim 1 and therefore contain all of the limitations of the base claim. For the reasons listed above, claim 1 is not anticipated by *Taylor*. Therefore, claims 2-3, 7, 8-12, 14, and 21 contain elements not disclosed by *Taylor*, and are therefore allowable. Applicant respectfully requests that the Examiner withdraw the 35 U.S.C. § 102(b) rejection of claims 1-4, 7, 8-12, 14, 21, and 26-29 and pass these claims to allowance.

Rejections under 35 U.S.C. § 103(a)

Claims 5, 6, 13, 18, and 22 have been rejected under 35 U.S.C. 103(a) as unpatentable over *Taylor*. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in

the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Without conceding the second criteria, Applicant asserts that the rejection does not satisfy the first and third criteria.

Not All Limitations

Applicant traverses the Examiner's rejection of claims 5, 6, 13, 18, and 22 under 35 U.S.C. § 103(a). First, *Taylor* does not teach all elements of claim 1. Claims 5, 6, 13, 18, and 22 depend from independent claim 1 and therefore contain all of the limitations of the base claim. For the reasons listed above, claim 1 is not anticipated by *Taylor*. Therefore, claims 5, 6, 13, 18, and 22 contain elements not disclosed by *Taylor*, and are therefore allowable. Second, the claimed subject matter is not simply "a recitation with respect to the manner in which a claimed apparatus is intended to be employed," as suggested by the Examiner in Paragraph 4 of the Office Action. Claims 5, 6, 13, 19, and 22 provide alternative structural embodiments of the invention. The fact that the structures in these claims may perform different functions does not result in any parallel to the *Ex parte Masham* reference cited by the examiner in Paragraph 4. In *Ex parte Masham*, the rejected claim was rejected over a reference which taught all of the structural limitations of the claimed subject matter. See M.P.E.P. § 2114. This is not the case here, as *Taylor* does not teach all of the structural limitations of the claimed subject matter. Because the cited combination of references does not teach all the limitations of claims 5, 6, 13, 19, and 22, a rejection of these claims under 35 U.S.C. § 103(a) was not proper. Applicant respectfully requests that the Examiner withdraw the rejection of claims 5, 6, 13, 18, and 22 under 35 U.S.C. § 103(a).

Improper Motivation

As admitted in the Office Action, *Taylor* does not teach the limitations of components being various memory modules, or an I/O controller, or a cache chip, or a crossbar chip. *Taylor* also does not disclose a ball grid array. The Office Action attempts to cure this deficiency by stating that it would have been obvious to one skilled in the art to combine the teachings of *Taylor* with methods of attaching a component to a circuit board. However, the

Office Action suggests no motivation for combining teachings, nor do the teachings of *Taylor* suggest such a combination. It is well settled that the fact that references can be modified is not sufficient to establish a *prima facie* case of obviousness. M.P.E.P. § 2143.01. Applicant respectfully asserts that it would not have been obvious to one of ordinary skill in the art to use the claimed limitations with the teachings of *Taylor*. As no proper motivation was cited for combining *Taylor* with prior art teachings, the 35 U.S.C. § 103(a) rejection of claims 5, 6, 12, 18, and 22 should be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 19 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Taylor* in view of *Rishworth et al.* To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. See M.P.E.P. § 2143. Without conceding the first and second criteria, Applicant asserts that the rejection does not satisfy the third criteria.

Applicant traverses the Examiner's rejection of claims 19 and 20 under 35 U.S.C. § 103(a). First, *Taylor* does not teach all elements of claim 1. Claims 19 and 20 depend from independent claim 1 and therefore contain all of the limitations of the base claim. For the reasons listed above, claim 1 is not anticipated by *Taylor*. Therefore, claims 19 and 20 contain elements not disclosed by *Taylor*, and are therefore allowable. Applicant respectfully requests that the rejection of claims 19 and 20 be withdrawn.

Non-Statutory Double Patenting Rejection

Claims 1-29 have been rejected as being unpatentable over claims 1-24 of U.S. Patent No. 6,711,021 based on obviousness-type double patenting. Applicant proposes filing a terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) if this rejection still properly stands after an indication of allowability of the claims of the application.

Application No.: 10/705,557

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In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-2025, under Order No. 200206282-2 from which the undersigned is authorized to draw.

Dated: September 20, 2004

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV482734253US, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: September 20, 2004

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